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June 30, 2021

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, AZ 85007

RE: Arizona Public Service Company (APS or Company)
2020 Renewable Energy Standard Implementation Plan
Docket No. E-01345A-19-0148

In the APS Distributed Demand-Side Resource (DDSR) Aggregation Tariff Progress Report filed April 1, 2021, APS proposed to issue an "all-DDSR" request for proposals (RFP) in Q2 2021 for aggregated technology solutions that would inform design and valuation processes for the DDSR Aggregation Tariff required by Decision Nos. 77762 (Oct. 2, 2020) and 77855 (Dec. 31, 2020).

The all-DDSR RFP (Attachment A) was issued today and is available to interested parties on aps.com/rfp. In addition to informing the DDSR Aggregation Tariff, the all-DDSR RFP supports APS's commitment to serving customers with 100% carbon-free energy through clean, reliable and affordable power.

The RFP is being promoted through the Peak Load Management Alliance, Association of Energy Services Professionals and other industry organizations. APS also distributed a news release announcing the RFP, which is included as Attachment B.

The final RFP was developed with input from numerous stakeholders and the Commission's Utilities Division Staff, with the assistance of Lawrence Berkeley National Laboratory. Following the filing of an all-DDSR RFP draft on May 20, 2021, APS held three stakeholder meetings and engaged with stakeholders individually to solicit their comments and address questions about the RFP. The Company looks forward to continuing this engagement with stakeholders and participating in future Staff stakeholder workshops regarding the DDSR Aggregation Tariff.

Please let me know if you have any questions.

Sincerely,

/s/ Rod Ross

Rodney J. Ross

RJR/bg
Attachments

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Attachment A

Arizona Public Service Company

2021 Distributed Demand-Side Resources Request for Proposals

June 30, 2021

Table of Contents

A. OVERVIEW

1. Introduction

Arizona Public Service Company (APS) is a regulated public utility that generates, transmits, and distributes electricity for sale in Arizona. APS is headquartered in Phoenix, Arizona. As Arizona's largest and longest-serving electric company, we generate safe, affordable, and reliable electricity for more than 1.3 million commercial and residential customers in 11 of Arizona's 15 counties.

Through a comprehensive planning process, APS determines how to meet future customer needs for reliable and affordable electricity, while achieving regulatory targets and reducing environmental impacts during the planning period. APS has worked with our team of resource experts, energy planners, and cross-sector stakeholders to develop a strategic roadmap on our path to a 100% carbon-free generation mix by 2050 (generally referred to herein as our Clean Energy Commitment). Our Integrated Resource Plan (IRP), which is filed with the Arizona Corporation Commission (ACC or Commission), initiates that process, and provides both a near-term action plan and a longer-term vision that show how we plan to meet our customer and resource needs for the next 15 years. The IRP provides the strategic direction for APS's acquisition of a clean, diversified, and balanced resource portfolio that meets customer needs, maintains reliability, results in reasonable energy supply costs, and mitigates market risks. It includes an interim target of achieving a 65% clean energy mix by 2030. We're focused on integrating renewable resources, empowering customers with flexible energy options, and incorporating advanced technology to produce clean and affordable energy, all while providing reliable service and remaining good stewards of Arizona's diverse environment.

This Distributed Demand-Side Resources Request for Proposals (this RFP) solicits competitive proposals (Proposals) for resources to help APS achieve its clean energy objectives, while also meeting the requirements of ACC Decision Nos. 77762 and 77855,[1] which ordered APS to file a tariff designed for aggregated distributed demand-side resource (DDSR) technologies. As ordered, the tariff must permit those enrolled in the tariff to aggregate DDSRs and must compensate them for the value of the resulting benefits to APS and its customers, including, but not limited to, capacity, demand reduction, load shifting, locational value, voltage support, ancillary and grid services, and any other demonstrable operating benefits. APS expects that any resources acquired through this RFP will help inform the design of the DDSR tariff and will help APS to determine the feasibility and value of aggregated DDSRs for providing ancillary and grid services.

APS intends to use this RFP process to procure clean energy resources while also informing development of the DDSR tariff.

[1] ACC Docket No. E-01345A-19-0148

2. Resource Need

Persons or entities responding to this RFP are referred to herein individually as a "Respondent" or collectively as "Respondents." A Respondent may consist of one or more persons or entities. APS will review and evaluate all Respondent Proposals in accordance with the terms of this RFP and may enter into a load management or other DDSR agreement with one or more Respondents. Resources that are proposed in this RFP, whether or not they are ultimately selected for a load management or other DDSR agreement with APS, will not necessarily be prohibited from participating in the future DDSR tariff; however, APS will not provide multiple sources of compensation for the same services, and therefore, participation in the DDSR tariff could be limited if APS determines that participation of a particular resource would allow that resource to receive more than one stream of compensation for the same service(s).

APS's IRP indicates a need for both clean energy resources and flexible capacity resources to maintain system reliability, particularly during summer system peak load times, in an environment of continued customer growth, expiring wholesale contracts, and increased customer adoption of DDSRs. APS must be able to respond to changes in customer demands or supply needs in real time, and APS seeks to develop a portfolio of resources that will enable it to do so. In this RFP, APS is seeking a total of up to 50 MW of aggregated DDSRs that are clean, flexible, responsive to dynamic changes in system demand, and able to be integrated with APS's resource portfolio.

APS anticipates distributed resources that provide both summer capacity and energy during peak periods will have significant economic value. Clean, flexible distributed resources are increasingly important in helping APS to meet its clean energy goals and maintain system reliability and will be valued accordingly. A 'heat map,' which is attached as Appendix A, provides guidance about the relative value of capacity and energy to be provided by any proposed resource during specified hours of the year and should be considered by Respondents as they prepare their Proposals.

All Proposals that meet the RFP requirements are eligible to participate, including those that offer either dispatchable or non-dispatchable resources. That said, APS sees a continuum of potential value from DDSR resources that is based on a combination of resource characteristics, including real time visibility and dispatchability. APS generally favors resources that can provide real time (or near real time) telemetry that provides visibility into aggregated DDSR operating characteristics and resulting load shape impacts to facilitate APS operational awareness. APS also generally favors resources that are dispatchable over those that are not as they provide more operational flexibility. Technologies that are set to follow a schedule fall somewhere in the middle of this continuum, depending on the level of visibility, whether they also offer incremental dispatch capabilities and other specific characteristics.

In addition, APS favors resources that best match our resource needs. In this way, peak-focused energy efficiency resources are highly valuable, while energy efficiency

resources that provide a majority of savings during off-peak times have less value for APS and its customers. To help APS make the most informed selection, Respondents are encouraged to provide information to define their parameters and options for scheduling, DDSR visibility, dispatch capabilities, and demonstrated load shape impacts.

3. Products Requested

In order to comply with the DDSR tariff order described above and to permit the aggregation of DDSRs and provide compensation for the value of various DDSR operating characteristics, APS is seeking proposals in three product categories, which are more fully described below. Proposals may include one or more of the listed products, and Proposals that offer more of the products may be viewed more favorably than those that offer fewer of the products if they provide greater value to APS and its customers as described in this RFP.

There is the possibility that current or future APS rate designs could impact the benefits and use cases of DDSR technologies. In addition, nothing in this RFP shall limit APS's ability to offer its own distributed demand-side programs in the future, regardless of whether or not APS enters into a load management or similar DDSR agreement as a result of this RFP. In these cases, specific terms of performance guarantees may be adjusted to allow for equitable resolution of these potential unforeseen influences on a Respondent's ability to meet performance metrics.

Product A: Distributed Demand-Side Energy and Capacity Resources. To support overall APS system reliability, APS requests competitive Proposals for DDSRs that provide capacity, demand reduction, and/or load shifting to meet seasonal peak capacity needs plus reserve margins. APS is seeking to acquire up to 40 MW of system energy and capacity resources and anticipates selecting one or more Proposals that offer between 5 MW and 40 MW of capacity and will be in service as early as June 1, 2022 but no later than June 1, 2024. APS recognizes that Respondents may be able to optimize the performance, value, and cost of proposed resources by bringing such resources into service in phases. Accordingly, APS will accept Proposals that offer resources that reach full in-service over time (e.g., 20 MW in 2022 with an additional 20 MW in 2023), provided that each phase must offer no less than 5 MW of capacity and the entire resource must be in service no later than June 1, 2024. The delivery period for a Product A resource shall not be longer than five years and shall begin when the first devices come online and provide grid services. For phased-in projects, the delivery period will begin when the first devices of the first phase come online and provide grid services, and such single five-year delivery period will incorporate any and all subsequent phases. All qualifying Product A proposals must include forecasted hourly capacity impacts/availability in Column 'D' of the 'DDSR 8760 Profile' spreadsheet.

Product B: Locational Resources. To address locational grid needs, APS requests competitive Proposals for DDSRs that provide flexible distributed capacity that is aggregated at specific locations within the APS distribution system to relieve peak-season capacity constraints on specific feeders and address low load conditions in the

non-summer months. APS is seeking to acquire up to 5 MW of system energy and capacity resources and anticipates selecting one or more Proposals that offer between 1 MW and 5 MW of capacity and will be in service as early as June 1, 2022 but no later than June 1, 2024. As with Product A above, APS recognizes that Respondents may be able to optimize the performance, value, and cost of proposed resources by bringing such resources into service in phases. Accordingly, APS will accept Proposals that offer resources that reach full in-service over time (e.g., 2 MW in 2022 with an additional 3 MW in 2023), provided that each phase must offer no less than 1 MW of capacity and the entire resource must be in service no later than June 1, 2024. The delivery period for a Product B resource shall not be longer than five years and shall begin when the first devices come online and provide grid services. For phased-in projects, the delivery period will begin when the first devices of the first phase come online and provide grid services, and such single five-year delivery period will incorporate any and all subsequent phases.

In addition to meeting the grid needs described above, APS expects that resources proposed under this Product B will help APS to determine *which* operational characteristics offer greater locational resource value and greater APS system value, which will inform future resource acquisitions and tariff designs. Proposals for resources that offer more opportunity for locational resource value will be viewed more favorably than those that offer less opportunity. For purposes of this RFP, a resource will have "locational resource value" if it can reliably impact the APS system at a specific location, at a specific magnitude for a specific duration, such that as a result APS could defer investments that would otherwise be needed to maintain reliable system operations. All qualifying Product B proposals must include forecasted hourly capacity impacts/availability in Columns E and F of the 'DDSR 8760 Profile' spreadsheet. Appendix B provides more specific information about locational value on the APS system.

Product C: Ancillary and Grid Services (including voltage support). APS requests competitive Proposals for DDSRs that will support the proper flow and direction of electricity, address imbalances between supply and demand, and help the distribution system recover after a power system event. In addition to meeting these needs, APS expects that resources proposed in response to this Product C will help APS to better understand the operational characteristics that contribute the most value to the APS system in the form of ancillary and grid services. The delivery period for a Product C resource shall not be longer than five years, and APS prefers a shorter term so that it can incorporate lessons learned regarding the operational characteristics of ancillary and grid services into future project agreements. Resources proposed for this Product C offering must offer no less than 1 MW and no more than 5 MW of aggregated system support. The minimum of 1 MW for Product C Proposals constitutes less than the minimum requirement required for these resources to participate in ancillary service markets. The minimum requirement for Load Following or Regulation Reserves market participation is 5 MW. The minimum requirement for One-Hour Reserves or Operating Reserves market participation is 10 MW. Accordingly, Product C resources proposed in this RFP may not be able to participate in ancillary service markets. They will, however, enable APS to determine the value

of each of these ancillary services as APS prepares for greater participation in ancillary service markets in the future.

In general terms, ancillary and grid services are those functions that enable APS to maintain a reliable transmission and distribution system and include:

a. Operating Reserves

Regulating reserves. Resources whose characteristics allow them to respond quickly to an instantaneous change in electrical demand, often represented as a regulation signal. In the distributed demand-side resource context, these resources may include some type of demand response or sources storing and then releasing electricity. Among the characteristics that are important for regulating reserves are the ability to respond quickly to a regulation signal and closely follow the regulation signal. A resource that can follow the regulation signal better than other resources will be viewed more favorably.

Contingency reserves. Resources that are able to address power plant or transmission line failures by increasing output from generators. These include spinning reserves, which respond quickly and are then supplemented or replaced with slower responding (and less costly) non-spinning/replacement reserves.

Ramping reserves. Resources that are able to address "slower" variations in net load and are being increasingly relied upon to manage variability in net load from wind and solar energy. These resources are rapidly evolving and are also known as load following reserves or flexibility reserves.

Voltage support. Resources that provide voltage support are those that allow system voltage to operate within the ANSI range A (+/-5% of service voltage) criteria. The value of these resources depends upon the magnitude and duration of their impact on system voltage, their ability to inject or absorb VAR output from inverter-based resources, and their ability to increase or decrease real system power (e.g., by load shifting).

Proposed ancillary and grid services will be evaluated according to how much system relief they provide, how fast that relief occurs, and for how long. "How much" (magnitude) refers to the headroom available for a generator, or the difference between its current output and maximum output. "How fast" (response rate) represents the amount of time required to increase or decrease the output of a generator. "How long" (duration) means the length of time a generator is required to "hold" output at the increased or decreased level. Section C(7) below contains a table specifying the minimum requirements for magnitude, response rate, and duration that will be used to evaluate Proposals for "Product C" ancillary and grid services.

All qualifying Product C proposals must include hourly capacity of available ancillary services in Column G of the 'DDSR 8760 Profile' spreadsheet. APS is seeking to learn more about the type of value of ancillary grid services that can be offered by DDSRs through this RFP. Respondents are encouraged to submit Proposals that offer ancillary grid service value that may not already be identified by APS and included herein. While APS is interested in the value streams specifically identified, it will not reject a Product C Proposal that offers ancillary grid service value simply because it is not specified herein.

B. General Proposal Requirements

Proposals must meet the following minimum requirements. Proposals that do not satisfy all applicable requirements will be considered non-conforming and may be eliminated from consideration by APS.

1. Timely Document Submittal

Each Respondent must complete and submit all required documents, together with the Proposal Fee, each as specified in Section E below and in PowerAdvocate, no later than the due dates detailed in the RFP Schedule found in Section E(4) below. APS's use of the PowerAdvocate platform for purposes of this RFP is explained in Section E(2) below.

2. Eligible Technologies

APS will accept Proposals for Products A, B, and/or C for the listed DDSR technologies deployed (either individually or in combination) at eligible APS residential, commercial and industrial customer sites. As more fully described in Section B(5) below, any otherwise eligible technology that is currently participating in any APS demand-side management program (including demand response and load shifting programs) is eligible to participate in this RFP, but only if it can provide incremental services for which it is not already being compensated through its current program participation. In addition, as specified in Section D(1) below, resources that are educational in nature only (i.e., behavioral energy efficiency or demand response programs that do not include tangible energy efficiency products) and do not result in measurable, delivered MWh and MW savings are not eligible to participate in this RFP. This RFP seeks demand-side resources only. Proposals for supply-side generation resources will not be accepted. Proposals that deploy natural gas or diesel generation to reduce customer loads will not be accepted.

a. Energy Efficiency

b. Smart Thermostats

c. Water Heating Controls

d. Pool Pump Controls

e. Managed Electric Vehicle (EV) Charging

f. Energy Storage

g. Building Energy Management System

h. Inverter Ancillary Capabilities (non-real power)

i. Any other technology that meets the ACC's definition of a DDSR*

*Any Respondent that is considering submitting a Proposal for a technology or combination of technologies not specifically listed above should request a discussion with APS via the PowerAdvocate platform to determine the eligibility of the potential Proposal.

3. Transaction Structure

APS has experience with using a "load management agreement" transaction structure and expects to employ a similar structure for resources contracted for as a result of this RFP. APS will provide Respondents with an indicative term sheet outlining key contract terms prior to the Proposal submission deadline. Such key contract terms will include performance requirements, associated guarantees, and remedies in the event of non-performance, as referenced in Section C of this RFP. Respondents will be expected to carefully review the term sheet, particularly with respect to those terms and conditions that may impact Respondent's price and/or timely deliverability of its resource and provide any required modifications to such terms and conditions. Respondents shall also be cognizant that APS expects minimal modifications to its fundamental terms and conditions, and Proposals that require more modifications will be viewed less favorably than those that require fewer modifications.

In addition to a traditional load management agreement structure, APS encourages each Respondent to offer any other transaction structure that it believes is appropriate for the resource included in its Proposal, particularly if such structure could be incorporated into a future tariff design that compensates the Respondent and participating customers for any grid value that they provide, consistent with the ACC order regarding the DDSR tariff described in Section A(1) above.

Cybersecurity provisions are critically important in APS's load management agreements when dispatch and communication software/hardware is integrated and jointly utilized. To facilitate Respondents' understanding of APS's cybersecurity requirements and assessment of each Respondent's cyber risk, APS has provided the Data Security and Privacy Addendum (DSPA) and the Third-Party Risk Review (TPRR) spreadsheet. Both documents are available on the "Download Documents" tab in PowerAdvocate. The DSPA will be part of any agreement executed in connection with this RFP and is representative of, but not the entirety of, APS's cybersecurity requirements. The TPRR spreadsheet must be completed by Respondents and is fundamental to APS's evaluation of Proposals as the basis to approve a Respondent for storing restricted and confidential APS data. Additionally, APS has provided a Cybersecurity Specifications spreadsheet in PowerAdvocate that contains additional cybersecurity requirements applicable to battery energy storage resources.

4. Commercial Viability

Each Respondent must demonstrate the ability to deliver any resource that it proposes. In determining a Respondent's commercial viability, APS will consider the experience of Respondent's commercial and development teams, whether Respondent has delivered similar resources in the past, Respondent's experience with the specific technology it proposes, and any other information provided by Respondent in support of its Proposal.

Any Respondent that will partner with another entity to enhance its commercial viability and enable Respondent to deliver its proposed resource must also demonstrate to APS's satisfaction that the partner relationship is legally enforceable and supports the Proposal being submitted. Respondent should clearly outline in the Proposal any relevant details of the partnership, including clear delineation of each parties' roles and responsibilities relative to the DDSR being offered.

5. Resource Characteristics

a. Incremental Load

Eligible aggregated participants shall include residential, commercial, or industrial customers of APS that are located in APS's service territory.

Consistent with the premise that APS does not intend to provide multiple streams of compensation for the same services, Proposals may not include capacity that is already participating in existing APS demand-side incentive programs. In other words, the capacity included in the Proposal must be distinct from capacity that APS has already secured through existing APS demand response programs including, but not limited to, the residential Cool Rewards, the Commercial/Industrial Peak Solutions program, and the Residential Energy Storage Pilot planned to be launched in Q3 2021.

Similarly, while APS does not prohibit DDSR technologies that have received a rebate or been counted towards energy efficiency, demand-side management or renewable mandates from participating in this RFP, Proposals shall only include DDSRs that are incremental to and not in conflict with their participation in current APS programs. For example, a smart thermostat that received an APS rebate for energy efficiency at the time of installation would be eligible to participate in DDSR aggregation offering demand response services. However, if this same thermostat is currently enrolled in the APS Cool Rewards demand response program, it would be ineligible to offer demand response peak capacity value in a DDSR aggregation. This same thermostat could still participate by offering other grid services, such as load shifting. As another example, from the Residential Energy Storage Pilot planned to be launched in Q3 2021, only those enrolled in the data-only portion of the pilot can participate. Customers enrolled in the capacity-sharing portion of the pilot will be ineligible. All proposals that include dual participation DDSRs should clearly identify these resources in Proposals and clearly demonstrate how they provide incremental grid value. Note that the basis of compensation for these dual participation resources will

be limited to their incremental value only, after accounting for grid services that APS has already paid for through other mechanisms (i.e., incentives or retail rates). Respondents must also indicate how any grid services they propose for dual participation resources will not conflict with any current grid services that APS has already obtained from these DDSRs while considering potential customer experience issues that could occur related to dual participation (e.g., fatigue from too many demand response and load shifting events).

Proposals may also not include residential, commercial, or industrial customers enrolled on a rate schedule/tariff where the generation component is provided by third-party providers. These programs/rates currently include: Alternative Generation-X, Interruptible Rate Rider, and Critical Peak Pricing-General Service.

b. APS Rights to Resource.

APS shall have exclusive rights to any proposed resource. Proposals may not offer a partial resource to be shared with or between APS and another entity.

c. Distributed Energy Resource Management System (DERMS)

In order to monitor, dispatch, and track these resources, it is APS's preference that all resources (particularly dispatchable resources) be integrated into the APS Resource Operating Platform (ROP). APS currently utilizes EnergyHub's Mercury Edge Connect platform as its ROP. Mercury Edge Connect is based on two-way communication between the participating vendor and EnergyHub's Mercury platform.

APS anticipates that during the first one or two years of operation, resources may need to be operational from the Respondent's Native Operating Platform (NOP) prior to being fully integrated with APS's ROP. After this initial period (the exact length of which will be determined on a case-by-case basis), the NOP will need to integrate with APS's distributed energy ROP for full delivery.

In the Executive Summary described in Section C(8)(a) below, Respondent should describe the communication protocol utilized by Respondent's DERMS, if applicable, and identify if it is open sourced or customized. This description should also indicate if there are any fees associated with use of Respondent's DERMS service if APS elects to utilize it, and should describe the proposed terms of such use. In addition to this high-level description in the Executive Summary, Respondents should upload a separate summary of its DERMS into PowerAdvocate in a file named "DERMS." (Note: Respondents must create this file.) This summary must include information about integration approaches and past experience with integration as well as what DERMS platforms Respondent currently integrates with.

6. Event Notification Process

For resources that will be dispatched for specified events (as opposed to being called upon on a predetermined schedule), Proposals must include a detailed description of the proposed "event process" and associated communication procedures to be followed when an event is called by APS, as well as Respondent's proposed tracking, reporting and load reduction validation process during and after an event.

For resources that are not utility dispatched, but that will be set up to operate as scheduled capacity reductions (e.g., rate enabled demand response that will be scheduled to provide demand savings during retail rate on-peak periods), Respondents should describe the methodology and approach for delivering savings, the customer interface to set up and adjust scheduled load shifting parameters, and the tracking system that will allow APS to monitor peak demand savings being delivered.

Respondent's description of these processes must be sufficiently detailed regarding mode(s) of communication (e.g., call center, auto dialing, direct device control, etc.) and the method used to monitor and report event results. In particular, APS is interested in learning how Respondent proposes to provide real time event tracking and facilitate data analysis for timely post-event reporting. Such information should be uploaded into PowerAdvocate in a file created by Respondent and named "Event Process." (Note: Respondent must create this file.)

7. Safety

Safety is paramount to APS. Respondents proposing resources that include customer-sited solar and battery energy storage technology should be aware that the design requirements and safety codes applicable to such technologies continually evolve at the state, county, and municipal level, and APS maintains its own set of safety standards as well. APS expects that any proposed resource will comply with all applicable requirements, codes, and standards at all times.

Any Respondent with whom APS enters into a contract as a result of this RFP will be required to subscribe to ISNetworld (www.ISNetworld.com), a third-party safety assessment system utilized by APS. If so required, confirmation of Respondent's subscription and an ISNetworld status of "A" or "B" will be conditions precedent to the effectiveness of any such contract, and Respondent will be further required to maintain "A" or "B" status for the term of the contract, all at Respondent's expense.

8. Interconnection

It is Respondent's responsibility to understand and ensure compliance with the interconnection requirements that apply to any distributed resources included as part of Respondent's Proposal. Information about APS's distributed resource interconnections can be found by visiting https://www.aps.com/dg#Interconnection and clicking on "Common Requirements." Additional ACC interconnect information can be found at https://apps.azsos.gov/public services/Title 14/14-02.pdf.

A previously installed non-exporting system may require reclassification to a system capable of export (which may require, among other things, the execution of a new operating agreement) in order to be included as part of an aggregated DDSR. APS reserves the right, in its sole discretion, to reject any Proposal for a resource that may not comply with applicable requirements.

9. Financial Collateral Requirements

The collateral requirements specified in this RFP represent the minimum requirements for all Proposals. APS will, however, engage in a credit risk evaluation with respect to each Proposal it receives and will consider: (a) Respondent's credit rating; (b) any existing transactions between Respondent and APS which could create additional credit exposure to APS; and (c) APS's internal credit analysis of Respondent's financial health. APS will then determine any necessary adjustments to its collateral requirements for final contracting. A Respondent's proposed price for the resource must include all costs for Development Security and Post-Development Security as described below and set forth in the Term Sheet. Additionally, APS requires the cost of collateral to be broken out as a separate line item in each Proposal, as noted in the "Pricing" tab in PowerAdvocate.

a. Development Security. Development security must be provided in the form of a letter of credit or cash deposit and must be submitted to APS upon contract execution. In the case of a letter of credit, it must be in the form and from an issuing bank acceptable to APS in its sole discretion. Development Security will be a minimum of $100/kW multiplied by the proposed resource capacity.

b. Post-Development Security. Post-development security must be in the form of a letter of credit or cash deposit and must be submitted to APS on or before the in-service date for the proposed resource. In the case of a letter of credit, it must be in the form and from an issuing bank acceptable to APS in its sole discretion. Post-Development Security will be a minimum of $40/kW multiplied by the proposed resource capacity.

10. Proposal Pricing

a. Product A and Product B. The price must be expressed as a capacity charge ($/MW) plus energy charge ($/MWh), and it must be fixed for the duration of the term of the associated agreement. The price must be provided by a Respondent in the "Pricing" tab in PowerAdvocate. Pricing must be inclusive of all resource costs (i.e., participant acquisition, collateral, technology cost and installation, metering, RTU and participant incentive payments, verification costs, etc.).

b. Product C. Respondents must propose pricing in the "Pricing" tab in PowerAdvocate. Pricing must be inclusive of all program costs (i.e., participant acquisition, collateral, technology cost and installation, metering, RTU and participant incentive payments, etc.). Respondents shall provide breakout of all components listed in the pricing template. Since the purpose of this product is to integrate and then determine the value of ancillary and grid services, APS will evaluate Proposal pricing based on expected performance of the proposed services rather than based on a contribution to capacity or energy. The table of "Ancillary Services Characteristics" included in Section C below details the performance requirements for ancillary and grid services.

11. Program Marketing and Branding

Each Proposal must describe how Respondent will market participation in any proposed resource to APS customers and how Respondent will coordinate program outreach and education activities with APS to ensure consistent messaging. At a minimum, APS must be able to review and approve all customer-facing marketing materials, which may include APS branding or co-branding of programs. Each Proposal should also describe how Respondent will support a seamless and positive customer experience for all resource participants throughout all aspects of their participation including pre-enrollment, enrollment, incentive payments, notifications, operations and events, and un-enrollment processes.

C. Operational Parameters

In addition to satisfying the General Proposal Requirements described in Section B above, Proposals must operate within the parameters set forth in this Section C. Proposals that do not meet the requirements specified in this Section C will be considered non-conforming and may be eliminated from further consideration by APS.

All Proposals offering capacity or load reduction must make such capacity or load reduction available year-round with the understanding that the more closely the resource aligns with the highest value periods in the heat map provided in Appendix A, the more favorably the resource will be evaluated. Proposals that offer "must take" energy during periods of low value that include times with negative avoided costs will be evaluated less favorably. In addition, the following operational parameters shall apply:

1. Duration

a. Product A. For Proposals that include rate-enabled technologies that are scheduled to dispatch around APS's retail on-peak rates, the standard event duration will need to be at least five hours from 3-8 p.m. weekdays, weekends, and holidays to ensure ongoing participant value from savings on time-of-use (TOU) and

demand rates. In addition, APS prefers to have dispatch capabilities for these technologies for events which may occur on weekdays or weekends. Any demand response events would be scheduled to avoid adversely impacting customer bills on TOU and demand rates.

For Proposals that include demand response events called by APS, such events must have a minimum duration of two hours. Respondents that offer Proposals with durations of up to six hours will be evaluated more favorably. Potential hours of dispatch are between 3-9 p.m. For Proposals that include HVAC thermostat adjustment, APS encourages pre-cooling to assist in maintaining customer comfort while maximizing impacts for events. Pre-cooling periods would occur prior to the 3-9 p.m. setback and create a total event timeframe of 12-9 p.m. if a three-hour pre-cool is deployed.

For demand response and load shifting events, the measurement window for DDSR impacts will be based on the entire load shape before, during, and after events for the entire deviation period from baseline (i.e., pre-cooling, setback, return/snapback). Any value-based compensation structure will be adjusted to consider baseline price responsiveness to applicable TOU or demand rates and the value that APS is already compensating participating customers for load shifting through bill savings. Note that while snapback impacts will typically cause a reduction in resource value, pre-cooling periods may provide additional resource value by shifting energy use to periods with lower system costs, higher solar production, and lower marginal carbon intensity.

b. Product B. For Proposals that include rate-enabled technologies that are scheduled to dispatch around APS's retail on-peak rates, the standard event duration will need to be at least five hours from 3-8 p.m. weekdays, weekends, and holidays to ensure ongoing participant value from savings on TOU and demand rates. In addition, APS prefers to have dispatch capabilities for these technologies for events which may occur on weekdays or weekends. All demand response events would be scheduled to avoid adversely impacting customer bills on TOU and demand rates.

For Proposals that include demand response events called by APS, such events must have a minimum duration of two hours. Respondents are encouraged to offer proposals with durations of up to six hours where feasible. Potential hours of dispatch are between 3-9 p.m. For Proposals that include HVAC control, APS encourages pre-cooling to assist in maintaining customer comfort while maximizing impacts for events. Pre-cooling periods would

occur prior to the 3-9 p.m. setback and create a total event timeframe of 12-9 p.m. if a three-hour pre-cool is deployed.

For demand response and load shifting events, the measurement window for DDSR impacts will be based on the entire load shape before, during, and after events for the entire deviation period from baseline (i.e., pre-cooling, setback, return/snapback). Any value-based compensation structure will be adjusted to consider baseline price responsiveness to applicable TOU or demand rates and the value that APS is already compensating participating customers for load shifting through bill savings. Note that while snapback impacts will typically cause a reduction in resource value, pre-cooling periods may provide additional resource value by shifting energy use to periods with lower system costs, higher solar production, and lower marginal carbon intensity.

c. Product C. APS prefers that ancillary service resources be available year-round. However, Respondents may propose seasonal options in their Proposals that they believe provide the highest value – particularly for combined product Proposals that could offer additional grid services in the off-season utilizing the same DDSR assets that are providing peak season capacity. Resources that respond quickly and provide the most kW relief for the longest time will be viewed and evaluated more favorably than those that do not.

2. Number of Dispatches

a. Product A. APS seeks proposals that offer a minimum of 20 dispatches per year.

b. Product B. To effectively defer T&D capital projects, APS seeks to dispatch for up to 60 peak capacity events each summer season. In addition, to address overgeneration issues during non-summer months, APS is interested in proposals that offer frequent event dispatches (up to 80/year) that dispatch loads during midday peak solar production periods. Please indicate the number of Events the proposed resource is capable of being dispatched during each period each year. Further details in Appendix B.

c. Product C. For event dispatch, resources must be available as needed year-round (or seasonally as specified) with full APS dispatch control.

3. Notification

a. Product A and Product B. For event dispatch, at a minimum all resources must be dispatchable with two-hour notification.

Preference will be given to Proposals which are capable of being dispatched with one-hour prior notice or less.

b. Product C. Different ancillary services respond at different time scales. For example, frequency response needs to be in milli-seconds and contingency reserves respond over hours. Each type of ancillary service will be evaluated by its response speed.

4. Event Frequency and Availability of Capacity

a. Event Frequency

Respondents must indicate the number of consecutive days events are capable of being dispatched for each Product. For demand response events, APS is requesting the ability to call up to three consecutive event days as needed with a preference for more.

For rate-enabled (scheduled) dispatch, resources should be scheduled to optimize around APS TOU and demand on-peak and off-peak rate periods on a continuous basis.

b. Availability of Capacity

For demand response event dispatch to serve Product A and B capacity needs, product capacity should be 100% available weekdays, weekends, and holidays during all demand response control seasons.

5. Verification of Load Reduction

Load reductions must be verifiable by APS using APS-owned AMI metering. APS will use internal resources and third-party independent verification to verify load reductions. Each Proposal must include a description of the methodology that Respondent proposes to validate its load reduction performance. Participants with customer-sited generation will be required to have or install a separate production AMI meter at their expense, for purposes of establishing a baseline load (i.e., customer load net of solar generation and/or energy storage) to calculate load reduction during an event. Note that current APS interconnection requirements include the installation of a separate production meter as standard practice in most installations regardless of this RFP provision.

APS intends to work with its current third-party evaluation contractor, as well as potentially other providers as needed, to fulfill the role of third-party verification. APS currently anticipates that the third-party evaluation contractor will be used to verify the evaluation that Respondents conduct at their expense. APS is requesting Respondents provide information about the verification processes they support. APS

encourages Respondents to propose innovative validation processes that provide adequate verification in the timeliest and most cost-effective manner possible.

6. Performance Guarantees

Respondent will be subject to performance guarantees (and associated remedies for failure to perform) that will be specified in the term sheet referenced in Section B(3) above. With respect to Products A and B, the guarantees and remedies will include, at a minimum: (a) a capacity payment adjustment if the resource fails to deliver the guaranteed capacity during an event; and (b) energy shortfall damages if the resource fails to deliver the guaranteed energy during an event. As described in Section C(7) below, certain performance requirements will apply to Product C resources. APS does not anticipate applying specific damages for failure to meet those requirements at the beginning of the delivery term, due to the novel nature of Product C resources and APS's desire to better understand them. APS does, however, anticipate ramping in such damages over the delivery term and does reserve the right to require damages even at the beginning of the delivery term if appropriate for a specific resource. APS expects that it will negotiate the guarantees and associated damages with any successful Respondent for a Product C resource.

a. Capacity payment adjustment resulting from failure to deliver the contracted capacity during an event.

b. Energy shortfall damages resulting from failure to deliver the contracted energy during an event.

7. Performance Requirements for Ancillary and Grid Service Resources

As described in Section A(3) above, the following table specifies the performance requirements applicable to resources proposed as Product C ancillary and grid services.

Ancillary Service Requirements						
Service	**Response Time**	**Metering/ Telemetry**	**APS Control**	**Service Type**	**Minimum Magnitude for testing**	**Minimum Duration**
One Hour Reserves (OCRs)	45 minutes or less	5-min	Direct Control	Must be able to move generator up/load down	1MW	4Hr
Operating Reserves	10 minutes or less	Minute	Direct Control	Must be able to move generator up/load down	1MW	2Hr

Ancillary Service Requirements						
Service	**Response Time**	**Metering/ Telemetry**	**APS Control**	**Service Type**	**Minimum Magnitude for testing**	**Minimum Duration**
Load Following	5 minutes or less	Minute - Load offset Second - Gen Resource	Direct Control from EMS, including automatic ACE following	Must be able to move generator/ load up and down	1MW	1Hr
Regulation	10 seconds or less	Second	Direct Control from EMS, including automatic ACE following	Must be able to move generator/ load up and down	1MW	1Hr
Frequency Response	1 second or less (measure ments will be taken at T+20 and T+50)	Second	Autonomous	Must be able to move generator/ load up and down	1MW	15 Min timed to Bal timers

D. Technology-Specific Eligibility Requirements

In addition to satisfying the requirements described in Section B and Section C above, each Proposal must satisfy additional requirements specific to the technology proposed therein. Proposals that do not meet the requirements listed in this Section D will be considered non-conforming and may be eliminated from further consideration by APS.

What follows is a list of the additional requirements for each technology type, as well as "APS Preferences" associated with each. Satisfaction of any of the APS Preferences is not required for a Proposal to be deemed conforming, but Proposals that meet more of the APS Preferences may be more competitive than those that meet fewer of the APS Preferences.

1. Energy Efficiency

a. Proposed Products must meet all local codes and be installed according to all manufacturer installation requirements.

i. Any proposed energy efficiency resource must pass the Societal Cost Test (SCT) as defined by the ACC Energy Efficiency

Standards in Arizona Administrative Code R14-2-2401(36). As such, APS will screen all energy efficiency Proposals using the SCT as prescribed by the ACC. All Respondents must provide input assumptions and calculations to pass the Societal Cost Test as well as providing information on other cost-effectiveness tests including the Ratepayer Impact Measure (RIM) Test.

b. Load reductions must be verifiable by APS by using then-available APS metering and in accordance with the agreed upon verification process described in Section C(5) above. Resources that are educational in nature only (i.e., behavioral energy efficiency or demand response programs that do not include tangible energy efficiency products) and do not result in measurable MWh and MW savings delivered are not eligible to participate in this RFP.

c. Respondents must describe the type of energy efficiency resource being proposed, the efficiency measure being deployed, the customer end use(s) being targeted, the basis for energy savings calculations, annual load shape of energy efficiency savings delivered, and the method that will be used to provide APS with timely data to track and verify the energy efficiency resource delivered on an ongoing basis.

d. APS prefers energy efficiency resources that can provide verifiable impacts and ongoing operational awareness. Integration with the ROP is not required for these resources, particularly if the respondent describes how they can demonstrate impacts throughout the agreement term without being connected to the ROP. APS requires the ability to validate contracted performance throughout the term, consistent with the ACC's rules and orders.

2. Energy Storage

a. Proposals may include the following energy storage technologies:

i. Battery energy storage system (BESS)

ii. Flywheel

iii. Pumped storage hydropower

iv. Compressed air energy storage system (CAES)

v. HVAC thermal energy storage

vi. Other energy storage technologies that meet the requirements of this RFP.

b. Proposed resources must meet all local codes and be installed according to all manufacturer installation requirements and must meet all APS-specific BESS safety requirements, which will be provided to Respondents for their review and integration prior to the Proposal submission deadline. APS strongly prefers BESS technology that has already undergone safety design, evaluation and testing as evidenced by industry-accepted test results and other supporting documentation. BESS resources that will undergo safety-related design, evaluation, and/or testing after contract execution will be viewed less favorably.

c. Any proposed facility must be capable of operating to 0° F for cold climate and to 122° F in desert climate, at 100% of the proposed contract capacity discharging for a minimum of four consecutive hours with a preference of six consecutive hours.

d. Proposals must describe the storage technology they propose to deploy and provide information about proposed targeted customer sites, forecasted charge and discharge cycles, roundtrip efficiency and losses, and proposed energy management and control systems. Proposals must also include methods of communication with distributed resources to ensure they can be reliably dispatched.

3. Smart Thermostats

a. Eligible resources include any connected thermostat that can be controlled remotely to manage temperature settings that enable participation in scheduled load shifting and dispatched utility demand response events.

b. Resources must meet all local codes and be installed according to all manufacturer installation requirements.

c. Resources must be capable of scheduling and dispatching HVAC end use loads at participating APS customer sites.

d. Each Respondent must describe its proposed methodology for controlling thermostats while ensuring occupant comfort during events, including use of pre-cooling. Respondents must describe any capabilities for advanced load shaping to flatten the load shape of delivered savings and avoid snapback at the end of events. Respondents must also specify proposed methods of communication with distributed resources to ensure they can be reliably dispatched.

4. Water Heating Controls

a. Eligible resources include connected water heating controls, installed in either new or existing water heaters at participating customer sites, that can be controlled remotely to manage temperature settings so that such resources can participate in scheduled load shifting and dispatched utility demand response events.

b. Resources must meet all local codes and be installed according to all manufacturer installation requirements.

c. Resources may include either electric resistance or heat pump water heaters and may be either new water heaters with built in controls or retrofit controls installed on existing water heaters.

d. Each Respondent must describe its approach for maximizing the resource capacity delivered, while also ensuring participants do not run out of hot water, and must describe how the resource will be tracked, monitored, and verified. Respondents must also specify proposed methods of communication with DDSRs to ensure they can be reliably dispatched.

5. Pool Pump Controls

a. Eligible resources include connected controls, installed at participating customer sites, that can be controlled remotely to manage pool pump settings so that such resources can participate in scheduled load shifting and dispatched utility demand response events.

b. Resources must meet all local codes and be installed according to all manufacturer installation requirements.

c. Resources may include either new pool pumps with connected controls included or existing pumps with retrofit connected controllers installed.

d. Respondents must describe the proposed product(s) for controlling pool pump operation and indicate proposed methods of communications to ensure pumps can be reliably dispatched, including addressing potential connectivity issues with home Wi-Fi networks reaching outdoor pool equipment.

6. Managed EV Charging

a. Eligible resources include connected controls installed at EV charging stations and/or EVs within the APS service territory that

can be controlled remotely so that such resources can participate in scheduled load shifting and/or dispatched utility demand response events.

b. Resources must meet all local codes and be installed according to all manufacturer installation requirements.

c. Resources may include either new or existing EV charging equipment that meets all technical requirements.

d. Each Respondent must describe the proposed product(s) for managing EV charging, discuss the approaches to be used to manage charging, and indicate proposed methods of communication to ensure EV charging can be reliably dispatched, including addressing potential connectivity issues. In addition, each Respondent must specify any other available load flexibility options such as two-way vehicle-to-grid load management.

7. Building Energy Management System

a. Eligible resources include any connected building operating system that controls the operation of energy end uses, including HVAC, lighting, refrigeration, and other equipment, that can be controlled remotely to manage settings so that such resources can participate in scheduled load shifting and dispatched utility demand response events.

b. Resources must meet all local codes and be installed according to all manufacturer installation requirements.

c. Each Respondent must describe the energy management systems being proposed, the targeted customers, the energy end uses they control, and the control approaches for delivering demand resources. Each Respondent must also indicate its proposed methods of communication with DDSRs to ensure they can be reliably dispatched.

8. Inverter Ancillary Capabilities (non-real power)

a. Eligible resources include any inverter technology that is installed at an APS customer site that is capable of providing the ancillary grid services described in Section A(3).

b. Resources must meet all local codes and be installed according to all manufacturer installation requirements.

c. Each Respondent must describe the types of inverters being proposed, the targeted customers, the energy end uses they

control, the types of ancillary services being proposed, and the control approaches for delivering these services. Each Respondent must also indicate its proposed methods of communication with DDSRs to ensure they can be reliably dispatched.

E. RFP Process and Schedule

1. Independent Monitor

An Independent Monitor (IM) will be used in the RFP process to ensure that it is conducted in a fair and unbiased manner. The IM will have access to all documentation provided by the Respondents in response to this RFP and will produce a final report summarizing its observations for use by APS, which may include submission to the ACC in connection with APS's regulatory requirements. The IM is obligated to maintain the confidentiality of all information that it reviews.

2. RFP Website and PowerAdvocate

a. Registration. Respondents must register online using the webform provided at the RFP website, http://www.aps.com/rfp. Registration will open on June 30, 2021. Registration enables each Respondent to access all RFP-related documents and to receive relevant messages and notices from APS through PowerAdvocate, a third-party, web-based platform for hosting solicitations. PowerAdvocate is subject to a confidentiality agreement with APS that prohibits the disclosure of confidential information submitted via the platform to unauthorized third parties. APS encourages each Respondent to carefully review the PowerAdvocate Terms of Use before submitting a Proposal. The Terms of Use are located at https://www.poweradvocate.com/web/terms-of-use.html.

b. Communications. All communication from Respondents to APS, including questions regarding this RFP, should be submitted in writing via the PowerAdvocate messaging system. Depending upon the nature and frequency of the questions APS receives, APS will choose to either respond to Respondent directly or post a response to the question in PowerAdvocate (without disclosing the Respondent's name).

c. APS Contact. The PowerAdvocate messaging tool is the sole medium of communication for this RFP and will be monitored and responded to by APS. Respondents that experience any difficulty should contact:

Arizona Public Service Company
Subject Line: 2021 Distributed Demand-Side Resources RFP
Email: ResourceAcquisition@aps.com

3. Confidentiality Agreement

Each Respondent must sign the Confidentiality Agreement (CA) that is available in PowerAdvocate and upload the signed copy via PowerAdvocate no later than July 21, 2021, as specified in the RFP schedule found in Section E(4). Upon receipt, APS will then execute and return a copy for the Respondent's records. APS encourages Respondent to refrain from making changes to the CA. Modified CAs should not be executed by Respondent without APS's agreement; rather, Respondent should make requested modifications using PowerAdvocate, and such requests may be reviewed and either approved or rejected by APS. APS does not guarantee that any requested changes will be made, nor does it guarantee its ability to review such requests, depending upon the nature and volume of requested changes.

Any Respondent that fails to upload in PowerAdvocate its clean, signed CA (i.e., with no changes or with changes expressly agreed upon by APS) by 2:00 p.m. Arizona time on July 21, 2021, shall be eliminated from further participation in this RFP.

4. RFP Schedule

The following schedule applies to this RFP, as determined by Commission decision:

Activity	RFP Deadline Date
PowerAdvocate Registration Open	June 30, 2021
RFP Issued	June 30, 2021
Confidentiality Agreement Submittal DUE	July 21, 2021
Respondent Proposal and RFP Proposal Fee DUE	September 7, 2021 5:00 p.m. Arizona Time
Shortlisted Respondents Notified	October 26, 2021
Final Selections	November 30, 2021
Contract Executions	March 1, 2022

Proposals shall be submitted in strict accordance with the RFP schedule. APS will not grant any extensions to the RFP schedule and will not accept late Proposals. Any Proposal received after the scheduled date will be rejected and the Respondent will be notified accordingly. APS also anticipates conducting a conference call for questions and answers in August 2021.

5. Currency

All prices must be clearly stated in United States Dollars.

6. Reservation of Rights

APS reserves the right to accept or reject in its sole discretion any or all Proposals for any reason at any time after submittal. APS also reserves the right to select an offer that is not the lowest price if APS determines that, in its judgment, the overall Proposal may result in the greatest value to APS's retail customers.

7. No Liability

Respondents that submit Proposals do so without legal recourse against APS or its officers, directors, employees, agents, contractors, or the IM based on APS's rejection of any Proposal or for failure to execute any agreement in connection with this RFP. Neither APS nor any of its officers, directors, employees, agents, or contractors shall be liable to any Respondent or to any other party, in law or equity, for any reason whatsoever relating to APS's acts or omissions arising out of or in connection with this RFP.

8. Return of Documents

None of the materials received by APS from Respondents in response to this RFP will be returned. All Proposals and exhibits will become the property of APS, subject to the provisions of the CA described in Section E(3) above.

9. Proposal Fee

A non-refundable RFP submission fee (the Proposal Fee) of ten thousand dollars ($10,000) must be submitted with each Proposal.

Respondents are entitled to submit one Proposal, which may include any or all of Products A, B and C, and which may include an alternative pricing variation for each, using the same Proposal Fee. The following terms may NOT change within a single Proposal:

a. Term of transaction, including in-service date

b. Technology

c. Size/Capacity, including duration for energy storage

d. Proposed program shape

If any of the foregoing characteristics of Respondent's Proposal change, then the changes amount to a separate Proposal for which Respondent will be required to submit a separate Proposal Fee.

APS must receive the Proposal Fee by the response date shown in Section E(4) above, and funds must be wired using the information below. Any costs or fees associated with wiring the funds shall be paid directly by the Respondent.

Company:	Arizona Public Service Company
Bank:	Wells Fargo
ABA/Routing No.:	XXXXXXXXX
Account No.:	XXXXXXXXXX
OBI Field:	XXXXXX; XXXXXXXXXXX 2021 Distributed Demand-Side Response RFP; Respondent's Name

10. Terms, Conditions and Pricing

Respondent shall include in each Proposal all costs necessary to deliver capacity and energy to the APS system including, but not limited to, development security, post-development security, and all costs related to safety requirements. Respondent will be bound to honor all terms of its Proposal, including but not limited to its price, which shall remain binding through the final selection notification and subsequent contract negotiations, as well as ACC approval (if required).

11. PowerAdvocate and Required Documents

Respondents are required to use PowerAdvocate to enter or upload all requested information. Respondents must identify all information in their Proposals that they request to be treated as proprietary and confidential information; provided, however that all Proposals will be shared with the IM as described in section E(1). Respondents are encouraged to submit their Proposals as early as possible in order to avoid filing delays due to heavy use of PowerAdvocate immediately prior to the Proposal submission deadline. APS will not grant individual extensions to the RFP schedule and will not accept Proposals or other documents after their respective due dates. For a Respondent's Proposal to be considered complete and eligible for further consideration, the Respondent must timely post to PowerAdvocate the following documents:

a. Completed Proposal, including a detailed Executive Summary of the Proposal. (A sample Executive Summary can be found in PowerAdvocate under the "Download Documents" tab.)

b. Executed CA posted in PowerAdvocate no later than July 21, 2021 at 2:00 p.m. Arizona time.

c. A complete response to each question, and a legible copy of each document specified on the pricing tabs of PowerAdvocate.

d. Executed certification page which demonstrates that the signatory has full authority to bind the Respondent to all of the terms and conditions contained in its Proposal. Respondents must use the certification page posted by APS on PowerAdvocate.

e. Additional documents to be uploaded into PowerAdvocate:

    i. Redlined Term Sheet referenced in Section B(3) above;

ii. Completed 8760 Profile;

iii. Event Notification Process referenced in Section B(6) above; and

iv. TPRR spreadsheet referenced in Section B(3) above.

F. Proposal Evaluation Process

1. Process Overview

APS will use both quantitative and qualitative criteria to evaluate Proposals. APS may eliminate any Proposal it deems insufficient at any point throughout the evaluation process. First, APS will determine if each Proposal satisfies the minimum requirements. If the proposal meets minimum requirements, the proposal will undergo a screening evaluation process described below. Only those Proposals that both satisfy the minimum requirements and perform well in the screening evaluation will be further evaluated through a portfolio evaluation.

The portfolio evaluation considers the fit of a Proposal relative to APS's existing resources, other Proposals, projected resource needs, and further qualitative evaluation. If at any time during the evaluation process APS determines that a Proposal does not meet its requirements, including timely submission of all documents and fees required pursuant to this RFP, or fails to remain competitive with other Proposals though screening, portfolio analysis, or qualitative analysis, such Proposal may no longer be considered, and APS will notify the Respondent accordingly during its notification process. Respondents are advised that price will be a major factor in APS's evaluation, but APS will also consider qualitative factors for highly ranked Proposals as described below.

2. Evaluation for Compliance with Minimum Requirements

a. Compliance with Minimum Requirements. Proposals will be reviewed for compliance with the general eligibility minimum requirements described in Section B and the applicable technology-specific minimum requirements described in Section C.

b. Failure of Proposal to Meet Minimum Requirements. APS may reject a Proposal if the Proposal fails to meet the minimum requirements or otherwise contains incomplete or inaccurate responses, as determined by APS in its sole discretion. APS may, in its sole discretion, seek clarification or remedying of a Respondent's Proposal prior to making a final determination regarding acceptance or rejection of a Proposal.

3. Screening Evaluation

a. Screening of Proposals. APS will screen and rank Proposals by resource type and cost. Proposals with prices significantly higher than other Proposals with similar characteristics may be removed from further consideration in APS's discretion. The screening process consists of a quantitative analysis (such as levelized busbar costs) to identify superior or highly ranked Proposals for further analysis.

4. Short List Selection of Proposal(s)

At APS's sole discretion, Proposals that satisfy the screening evaluation described in Section D (3) above may be shortlisted for further detailed evaluation by APS, which will include both a portfolio analysis and a broad qualitative analysis. APS will notify shortlisted Respondents, if any, along with those Respondents whose Proposals have been eliminated from further consideration, in accordance with the RFP schedule set forth in Section E (4) below.

a. Portfolio Analysis. APS will utilize resource planning models and production cost modeling software to evaluate how well any shortlisted Proposal meets system reliability requirements while minimizing projected APS system costs. Resources will be evaluated within the APS portfolio based on present value revenue requirements (PVRR) for the APS system.

APS will not disclose to Respondents the generation cost estimates used for Proposal evaluation but will provide that information to the Independent Monitor referenced in Section E (1) below. Further, APS's avoided capacity (generation, transmission, and distribution) and energy values are proprietary data and will not be disclosed to Respondents.

b. Qualitative Analysis. The qualitative analysis is composed of a holistic risk assessment considering numerous factors including but not limited to: technology, project viability, developer experience, safety record, safety features, quality assurance and quality control experience, credit risk, counterparty viability, supply chain risk, and contract risk related to the development of the proposed project. APS will also evaluate the Respondent's proposed modifications to the relevant pro forma agreement or term sheet. Those Proposals that contain fewer changes to the pro forma agreement or term sheet may be more competitive than those that contain more changes (either in number or scope).

5. Detailed Evaluation of Shortlisted Proposals and Final Selection of Proposal(s)

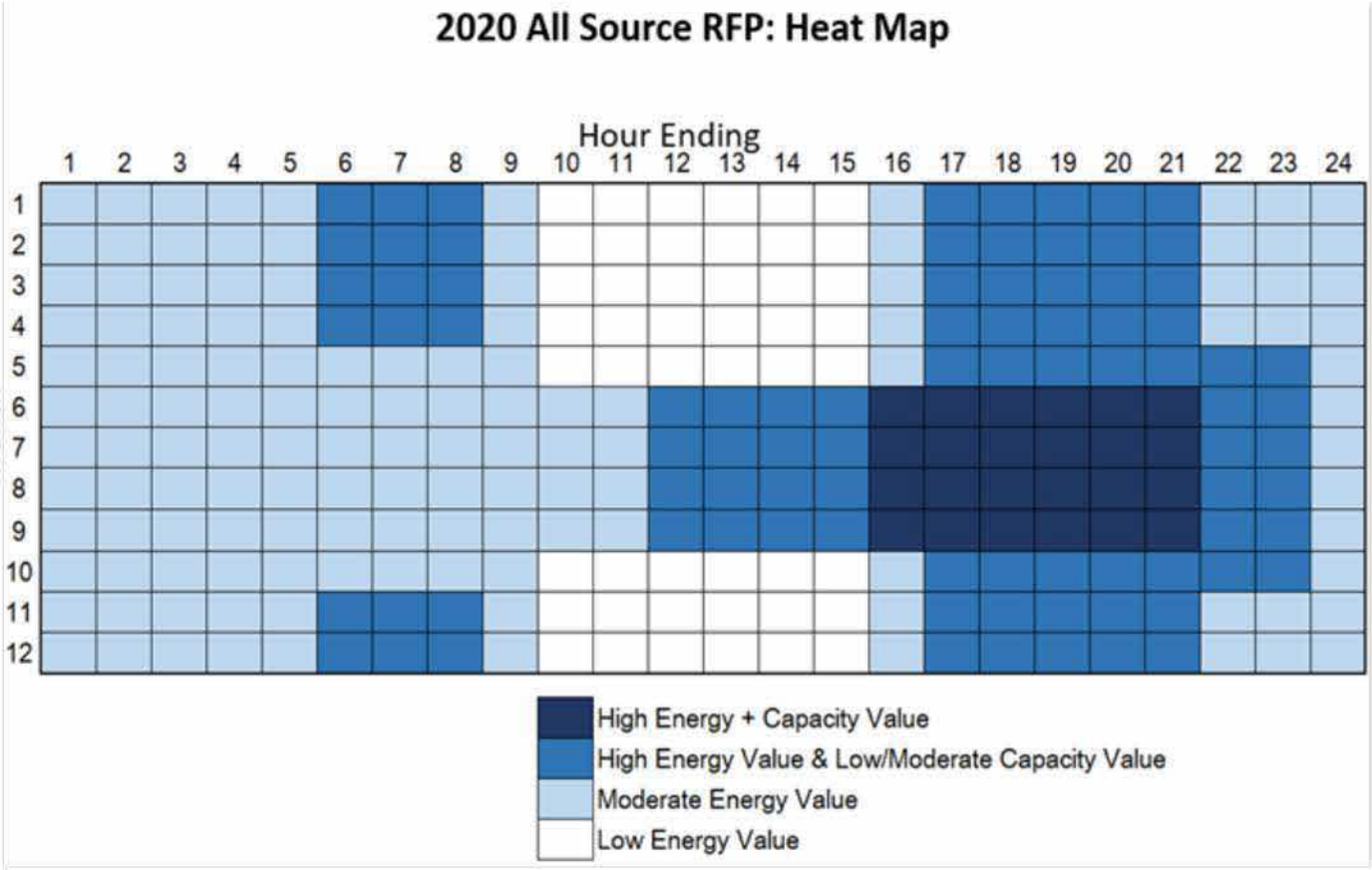
a. Meetings with Shortlisted Parties. APS may conduct meetings or phone calls with shortlisted Respondents to gain a greater understanding of each Proposal. APS may also require shortlisted Respondents to submit project and/or Respondent-specific pro forma financial statements by year for the applicable facility development and construction period, including income statements, balance sheets, and statements of cash flows. APS may then re-evaluate each shortlisted Respondent's Proposal including any new information provided during or as a result of the shortlist meetings, in a manner similar to the evaluation process described in Sections D(3) and D(4) above.

b. Final Evaluation and Selection. Following the shortlist process described above, APS may make a final selection of one or more Proposals for negotiation of an agreement in a form substantially similar to that set forth in the relevant pro forma agreement (or based on the terms contained in the relevant term sheet). APS will notify shortlisted Respondents whose Proposals are eliminated from further consideration in accordance with the RFP schedule set forth in Section E(4) below. APS reserves the right, in its sole discretion, to not select any Proposals for negotiation of an agreement if warranted by its evaluation.

c. Right to Terminate Negotiations. If APS cannot reach an agreement with the final selected Respondent or Respondents, APS reserves the right to terminate negotiations with such Respondents and begin discussions with other Respondents, begin a new solicitation, and/or cancel this RFP.

d. Regulatory Approval. Any final agreement resulting from this RFP may be conditioned upon actions and/or approvals by the Arizona Corporation Commission, satisfactory to APS in its sole discretion.

Appendix A


2020 All Source RFP: Heat Map
Hour Ending
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Month
1 2 3 4 5 6 7 8 9 10 11 12
High Energy + Capacity Value
High Energy Value & Low/Moderate Capacity Value
Moderate Energy Value
Low Energy Value

Appendix B

Locational Value Characteristics

- Product B is intended to help defer potential future upgrades on up to 6 distribution feeders in the Phoenix metro area. The objective will be to explore the use of Distributed Demand Side resources to address both 1) summer peak capacity needs and 2) non-summer low net load conditions caused by high solar DG penetration on the selected feeders.

- APS is seeking a total of between 1-5 MW of flexible demand spread relatively evenly across these 6 feeders. Bids can include summer and/or winter capacity located on these 6 feeders (Note that winter capacity value is provided by shifting loads into midday solar production periods when feeders are experiencing low-load conditions).

- More complete confidential information on project locations and feeder details will be made available to all Respondents who proceed with confidentiality agreements.

Attachment B

aps NEWS

aps.com

FOR IMMEDIATE RELEASE

June 30, 2021

Media Contact: Yessica del Rincón (480) 209-8513
Website: aps.com/newsroom

APS RFP SEEKS INNOVATIVE DEMAND-SIDE RESOURCES TO ACCELERATE CARBON-FREE COMMITMENT

Energy-saving products move APS customer experience closer to 100% clean

PHOENIX – With more energy-saving technology available than ever before, Arizona Public Service Co. (APS) is poised to add new smart customer products to its already comprehensive customer energy efficiency and demand-side management program portfolio. APS's newly issued Distributed Demand-side Resources (DDSR) Request for Proposals (RFP) is seeking aggregated clean energy resources that will create more residential and business customer opportunities to manage energy costs, incentivize energy use when solar resources are abundant, conserve energy when demand is high and maintain grid reliability.

"We're passionate about delivering a high-quality customer experience and incorporating smart conservation strategies that conveniently fit customer needs," said Daniel Haughton, APS director of Customer to Grid Solutions. "Our team is focused on increasing access to customer-sited demand-side products, planning for their seamless integration into our grid and adding resources that will help power APS toward reaching a 100% carbon-free energy mix by 2050."

APS is seeking proposals for products that aggregate distributed technologies to provide systemwide capacity resources from 5-40 megawatts and locational resources of 1-5 megawatts. This RFP is open to all eligible distributed demand-side technologies, including both dispatchable and non-dispatchable resources, which can include products such as energy storage, smart thermostats, managed electric vehicle charging stations and connected water heater and pool pump controls. Proposed projects must begin service no earlier than June 1, 2022, and no later than June 1, 2024. APS will allow projects to be phased in during that period as long as they achieve full capacity by the latter date.

This RFP was developed with input from stakeholders to support the future development of a DDSR Aggregation Tariff, which was proposed in a recent Arizona Corporation Commission decision. The RFP will help APS gain market information on DDSR technologies and the value streams they can bring to customers and the grid, including reliability, cost savings, locational value and grid support.

APS has already successfully integrated new and emerging energy efficiency and demand-side management products into its wide-ranging portfolio of customer technology programs to provide dependable methods of load reduction. Among these customer resources is APS Cool Rewards, a nationally recognized voluntary energy conservation program that provides residential customers a way to manage energy use on hot summer days. APS Cool Rewards, now with more than 44,000 enrolled thermostats, and APS Marketplace, a one-stop online shop for competitively priced smart home products, are part of the utility's signature programs recognized with the ENERGY STAR Partner of the Year Award by the Environmental Protection Agency (EPA) for delivering innovation in technology, customer service and energy efficiency.

The entire RFP process is monitored and reviewed by a third-party independent monitor. Important information regarding respondent registration and proposal requirements for the RFP can be found at aps.com/rfp.

APS serves more than 1.3 million homes and businesses in 11 of Arizona's 15 counties, and is a leader in delivering affordable, clean and reliable energy in the Southwest. The company is committed to serving customers with 100% clean power by 2050. As owner and operator of Palo Verde Generating Station, the nation's largest producer of carbon-free electricity, and with one of the country's most substantial renewable energy portfolios, APS's current energy mix is 50% clean. With headquarters in Phoenix, APS is the principal subsidiary of Pinnacle West Capital Corp. (NYSE: PNW).

This press release contains forward-looking statements based on current expectations. These forward-looking statements are identified by words such as "estimates," "expects" and similar words. Because actual results may differ materially from expectations, we caution you not to place undue reliance on these statements. A number of factors could cause future results to differ materially from outcomes currently expected or sought by us. A discussion of some of these risks and uncertainties is contained in our Annual Report on Form 10-K and is available on our website at pinnaclewest.com, which you should review carefully before placing any reliance on our forward-looking statements or disclosures. We assume no obligation to update any forward-looking statements, except as may be required by applicable law.

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